

### **National Institute of Electronics & Information Technology** Gorakhpur



(Under Ministry of Electronics and Information Technology, Govt. of India) MMMUT Campus, Deoria Road, Gorakhpur-273010 http://www.nielit.gov.in/gorakhpur/

# Full stack development using MERN



#### Full stack development using MERN

Online Course

08 Weeks (2 Hrs. per day)

Timing: - 03:00 PM to 05:00 PM

Medium of Instruction: Bilingual (English & Hindi)

### **Objective**

In this course, students will learn about the most advanced web-app development environments with immense exposure on practicality. The course is designed for an aspiring developer to enrich the knowledge of different JavaScript libraries and frameworks. Today and ever since the JavaScript has been developed as a language, it has deeply impacted the web app development process. In this curriculum, we have covered Express IS, React IS and Node.js which are all very advanced JavaScript libraries used extensively across the world to handle both the Front-end and Back-end development processes. MongoDB is also covered which is a revolutionary NoSQL kind of database package.

10+2/ Graduate (Passed/Appearing) with basic knowledge of Computer Programming or NIELIT O/A Level Courses

**Eligibility** 

### **Prerequisite**

- Candidate must have latest computer/laptop with preferably 4 GB RAM or higher and Graphics Card (2 GB)
- Software: Windows OS (7 or above), Google Chrome (can be downloaded from respective websites)
- ✓ Internet connection with good speed (preferably 2Mbps or higher)

Rs. 3400/- including GST & all other charges.

**Course Fees** 

**Methodology** 

## Certificate

Certificate will be provided to the participants, based on minimum 75% attendance and on performance (minimum 50% marks) in the online test, conducted at the end of the course.

- Instructor-led live classes
- Instructor-led hands-on lab sessions.
- Content Access through e-learning portal
- Assessment and Certification

# **How to Apply?**

- **Step-1:** Read the course structure & course requirements carefully.
- **Step-2:** Visit the Registration portal and click on apply button.
- **Step-3:** Create your login credentials and fill up all the details, see the preview and submit the form.
- **Step-4:** Login with your credentials to verify the mobile number, email ID and then upload the documents, Lock the profile and Pay the Fees online, using ATM-Debit Card / Credit Card / Internet Banking / UPI etc.



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#### **Course Content**

Module No.	Web Development Fundamentals
Module 1	<ul> <li>Fundamentals of Web Design, Webpage and Website, Web application</li> <li>HTML Typography, Images, Tables, Lists, Hyperlinks etc.</li> <li>CSS Syntax and usage, CSS Selectors, CSS on body, CSS on Text, CSS on Links, CSS on Tables, CSS on Lists, CSS on Forms, CSS on Images, CSS on DIV, A Template</li> <li>W3.CSS Framework</li> </ul>
	JavaScript and ECMA Script 6
Module 2	<ul> <li>JavaScript Fundamentals</li> <li>Grammar and types, Control flow and error handling</li> <li>Loops, Function</li> <li>Objects, Arrays, Promises</li> <li>ES6 Let and const, Template literals</li> <li>Arrow Function, Default parameter, Async Await</li> </ul>
	Node JS and Express JS
Module 3	<ul> <li>Node.js overview, Node.js - basics and setup</li> <li>Node.js console, Node.js command utilities</li> <li>Node.js modules, concepts</li> <li>Node.js events, database access</li> <li>Node.js with Express.js, Express.js Request/Response</li> <li>Express.js Get, Express.js Post</li> <li>Express.js Routing, Express.js Cookies</li> <li>Express.js File Upload, Middleware</li> <li>Express.js Scaffolding, Template</li> </ul>
	MySQL and MongoDB
Module 4	<ul> <li>MySQL Concepts</li> <li>Create, Read, Update, Delete Operation</li> <li>SQL and NoSQL concepts</li> <li>Create and manage MongoDB</li> <li>Migration of data into MongoDB</li> <li>MongoDB with NodeJS</li> <li>Services offered by MongoDB</li> </ul>



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Module No.	React JS
Module 5	<ul> <li>ReactJS introduction and overview</li> <li>ReactJS installation and environment setup</li> <li>Introducing JSX, Rendering Elements</li> <li>Components and Props</li> <li>State and Lifecycle</li> <li>Handling Events</li> <li>Conditional Rendering</li> <li>Lists and Keys, Forms</li> </ul>
	➤ Lifting State Up

### **Course Coordinator**

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Mobile Number: 8840086673 / 8317093894